

SPECIFICATION AMENDMENTS

On page 17, please replace the paragraph starting at line 15 with the following:

In general, Fig. 2 shows a watermark encoding system 100 (or simply “watermark encoder”) that may be implemented at a content provider/producer to encode the audio signal with a watermark. The watermark encoding system 100 has a converter 110 to convert an audio signal into frequency and phase components and a mask frequency-processor domain magnitude and phase components. It may also include an energy-level trigger (not shown) ~~112~~ to determine a hearing threshold for corresponding frequency components. The trigger ~~112~~ determines whether the energy level across a portion of the signal warrants encoding of the watermark in that portion.

On page 18, please replace the paragraph starting at line 12 with the following:

In general, Fig. 3 shows a watermark detecting system 130 that may be implemented at a client that plays the audio clip (containing the audio signal). Like the encoding system 100, the watermark detecting system 130 has a converter 140 ~~14012~~, a mask processor 142, and a watermark pattern generator 144. It is also equipped with a watermark detector 146 that locates a watermark in

1 the audio clip. The watermark detector 146 determines which block
2 interval of the watermarked audio signal contains the watermark
3 pattern and if the watermark generated by a particular key is present
4 in that block interval of the signal.

5
6 On page 20, please replace the paragraph starting at line 19 with the following:

7
8 Each block is transformed by a MCLT (modulated complex
9 lapped transform) to the frequency domain. This produces a vector
10 ~~have~~ having a defined number of magnitude components. The
11 magnitude is measured in a logarithmic scale, in decibels (dB).

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13 On page 21, please replace the paragraph starting at line 4 with the following:

14
15 In general, a frame may include any given number of blocks.
16 However, if it is too long, the watermark is more likely to be noticed
17 by a digital pirate. If it is too short, the bits of the watermark may be
18 had to find for the watermark detector. In addition, the optimum
19 number of blocks in a frame depends upon the block size. The
20 proper number of block per frames for a given implementation can
21 be determined with a minimum of empirical measurements. Three
22 to seven blocks per frame may be appropriate for one
23 implementation, but nine to eleven blocks per frame may be better
24 for another.